

External temporal specification in English verbs of motion

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The semantic properties of English motion verbs are complex and display several levels of organization. I would like to show that the two basic concepts associated with physical motion, namely progression in space and progression in time, are hierarchically structured. More specifically, I claim that speed as an external temporal component of movement assumes a secondary, derived status because it derives from the kinetic properties of actions denoted by the verbs (and from their intralinguistic comparison). I also argue that it is essential to separate the level of external temporal (in the sense physical) structuration of motion verbs from the level of their internal semantic structure.

I will concentrate on verbs of overt physical activity, which illustrate the relevant concepts most clearly.

I take movement as a sequence of kinetic quanta. I define ‘quantum’ in its minimum sense, namely as the distance between the successive phases on the route along which the object moves, that is, as the distance between contiguous locations along the path. For example, *walk* describes a sequence of essentially identical kinetic quanta, a single kinetic quantum consisting of one leg being swung in front of the other (at a higher level of abstraction, walking may thus be viewed as a physically homogeneous activity).¹

Needless to say, motion is conceptually related to progression in place and in time. According to Langacker (1982:267), to say that a body moves through space is to say that a body occupies a continuous sequence of distinct points in space correlated with the passage of time.

In the expressions *to walk slowly (quickly)*, or *to come back quickly (slowly)* the adverbs specify time intervals between individual kinetic quanta (their temporal sum total marks the duration of the motion). Since these components of meaning pertain to temporal configuration of individual quanta, they operate at the level of physical structuration of movement as lexically encoded by the verb. More specifically, they operate within the sphere of kinetic (external temporal) structure of movement, which must be kept apart from the level of the internal temporal contour (internal semantic structure) of motion verbs.

At this point let me make a brief terminological remark concerning the ‘internal semantic structure’ of verbs. This term is used in at least two different senses. It may describe the type of componential semantic analysis in which certain semantic concepts operating at a higher level of abstraction are specified (e.g. the concepts of change, motion, contact or cause), or it may be used to specify ways of viewing situation types in terms of the speaker’s aspectual choices. The term ‘internal semantic structure’ in the latter sense relates to the internal temporal contour or distribution of an event in terms of the beginning, middle and end phases.²

Perhaps the best-known classification of verbs in terms of what Dušková (1983) felicitously referred to as ‘lexical aspect’ was proposed by Vendler (1957). He distinguished four major types of verbs. States (such as *knowing the answer*) are temporally homogeneous and static. Activities, such as *running*, are extended in time but have no clear endpoints. Accomplishments, such as *running a mile*, are also extended in time but aim at the attainment of a certain state. Achievements, such as *reaching the border*, refer to the instant at which a state is achieved. States and activities are atelic, i.e. their action does not proceed to any goal or in any direction, whereas accomplishments and achievements are telic, i.e. they are delimited (for the distinction between telic and atelic verbs see e.g. Dušková 1983 and 1988 and Comrie 1976).

Punctuality, which may be seen as an extreme case of telicity, is often associated with the absence of duration.³ For example, Quirk et al. (1985:200-9) describe the punctual *nod* as a verb incapable of having duration, and the same standpoint is taken by Comrie (1976:42).

It is certainly true that due to the absence of its internal semantic structure, *nod* can only be predicated for single moments of time (*nod* can combine with the progressive only in its iterative meaning). However, punctuality of action does not necessarily have to be accompanied by the absence of the duration of the respective movement. For example, the movement as encoded in *nod* does have duration – this fact asserts itself in the verb’s capacity to combine with the adverb *slowly* (one can *slowly nod one’s head*). The compatibility of the adverb *slowly* with *nod* is enabled by the fact that *slowly*, marking a slow progression from one kinetic quantum to another, operates at the level of kinetic structuration of movement. (Needless to say, the term ‘duration’ as used in this connection specifies ‘the sum total of the temporal intervals between individual kinetic quanta’.) That is, the level of the external temporal structuration must be kept apart from the level of the internal temporal structure of motion verbs. The punctuality of *nod* thus consists in the absence of its internal semantic structure (internal temporal contour), not in the absence of external temporal structuration – logically, the verb must go through all the kinetic phases if it is to be what it is claimed to be (cf. Kudrnáčová 2002).

Before dealing with speed as a component of meaning pertaining to the external temporal structuration of motion verbs, let me first explain the terms ‘manner-conflating verbs’ and ‘path-conflating verbs’.

In his description of motion situation, Talmy (1975, 1985, 2001) distinguishes the following components: the Figure (i.e. the object moving with respect to another object, called the Ground), the Path (i.e. the course followed by the Figure), and Motion (which refers to the presence per se of motion in the event of motion). In addition to these internal components, a Motion event can be associated with an external Co-event that most often bears the relation of Manner. For example, the verb *roll* (as in the sentence *The pencil rolled off the table*) conflates two components: Motion plus Manner. Fellbaum (1990:285) adds, among other semantic components, also the speed of motion (*run, stroll*).

Apart from a numerous group of manner-conflating verbs (*run, walk, jog, swim, creep, crawl, fly, stroll, rush, trudge along*), English has a number of motion verbs which conflate motion with path (*arrive, come, go, depart, fall, descend, turn, cross, enter, escape, ascend, retreat, recede, advance, proceed, exit, pass*). The aspects of path encoded in these verbs ‘concern the configuration and position of the path, often specified in relation to the direction of motion’ (Matsumoto 1996:190).

The adverbs *quickly* and *slowly*, marking a temporal progression from one kinetic quantum to another, can generally be combined with verbs of motion.

From the perspective of the internal temporal contour of motion verbs, manner of motion verbs are generally mute with regard to an inherent direction or a specific goal (location) of motion. That is, they are, in the absence of an ‘overt delimiter’, basically atelic – consider the atelic *I ran* versus the potentially telic *I ran to the store* (cf., e.g., Levin and Rappaport Hovav 1992, Dini and Di Tomaso 1999).

In manner-conflating motion verbs, *quickly* and *slowly* function as adverbs of manner, i.e. they indicate the modality of the action (*He is walking quickly/slowly*).

It is interesting to note, however, that the adverb *quickly* in combination with telic motion verbs yields two semantic readings. With verbs of ‘directed motion’ (such as *come back* and *arrive*) which express ‘an achieved location’ (cf. Rappaport Hovav and Levin 1998:102), the adverb *quickly* may either mean that the act itself was performed quickly, or that the event occurred very soon – consider the sentence *He quickly came back*. That is, *quickly* with these verbs either marks short duration of movement (in the sense ‘temporal sum total of individual kinetic quanta’), or expresses the notion ‘without delay’. In the latter meaning, *quickly* not only refers to the movement as occurring soon after some other event, but also refers to the state of mind of the actor. In the light of this, *quickly* in this sense functions also as a subject-oriented adverb in that it expresses the quality demonstrated by the subject in carrying out the action.

If motion verbs express an inherent path which is delimited through the addition of an overt delimiter (as in *fall to the ground*) or if they express a certain manner of motion and the path is delimited through the addition of a goal phrase (as in *to walk to the store*), they are of course telic verbs (cf. Levin and Rappaport Hovav 1992, Dini and Di Tomaso 1999).

In sentences with these verbs (consider for example the sentence *He quickly walked to the store*) the adverb *quickly* can either mark a quick progression from one quantum to another, or it can mark the temporal sum total of individual quanta (that is, it expresses short duration of the movement taken as a whole – in the sense ‘it took him a short time to walk there’).⁴

Coming back to external temporal structuration as it manifests itself in manner-conflating and path-conflating verbs, let me mention one well-known fact, namely that the dominant pattern of lexicalization is to conflate motion with manner, leaving path to be expressed by additional phrases (*run, walk, slide, fly, crawl, jog, roll, swim, stroll, skate*, etc.). These verbs do not specify an achieved location (or a specific direction). In these verbs, manner of motion specifies, among others, the physical character and spatial configuration of individual kinetic quanta. Speed as the temporal interval between individual quanta only results from the respective character of the said physical structuration. This means that in the hierarchy of meaning components, speed assumes a secondary, derived status. In this sense it is an implicit meaning component. This does not, naturally, mean that these verbs cannot combine with *quickly/slowly* as explicit specifications of speed (one can *walk/run quickly* but one can also *walk/run slowly*).

The above observation is, so far, in line with Miller and Johnson-Laird’s (1976:551-2) opinion, namely that the distinction between *run* and *walk* cannot be based on velocity of motion but on different manners of movement. That’s why, they say, it is not odd to speak of walking rapidly or walking slowly, or to speak of running rapidly or running slowly.

How is it, then, that dictionaries and linguists generally treat *run* as denoting a rapid rhythm of the movement and *walk* as denoting a slow (or ‘normal’) rhythm of movement? For example, Collins Cobuild English Language Dictionary (1988:1271) explicitly states that ‘when you run, you move faster than when you walk’. Running is specified as ‘fast

movement' in, e.g., Levin and Rappaport Hovav 1992, Taylor 1996, Matsumoto 1996, Fellbaum 1990, Vaimberg 1983, Nida 1997.

Miller and Johnson Laird are certainly right in pointing out that the two verbs denote two conceptually different manners of movement. However, one must not forget that in comparison with walking, running also implies the presence of effort since the motion involves more vigorous bodily movements – and effort is conceptually related to a relatively high speed of motion. From this it follows that velocity of movement as implied in these verbs is, as I have pointed out, determined by the character of the respective kinetic quanta. That is, velocity norm as implied in *run* differs from velocity norm as implied in *walk*. (Needless to say, velocity norm, being of relative character, cannot be specified in absolute terms.) Therefore, as opposed to walking, running is associated with higher speed, and this is precisely the reason why language users resort to *run* in the sense 'to hasten somewhere' (also figuratively, for example for help): *She ran to the store to get some ice cream* (it may well be that no actual running is involved), *He is always trying to run home to his mother*.

It seems, then, that the most prominent component of meaning in *run* is the speed of movement. The attribute 'prominent' is not to indicate that velocity maintains a primary status while the physical character of the individual quanta assumes a derived, secondary status. Rather, the attribute 'prominent' expresses the idea that in visual perception, speed of motion is among those features of movement that are most readily accessible to apprehension and subsequent evaluation.

These facts also support Fellbaum's observation, namely that the verbs *run* and *walk* seem to be, due to the opposing manners implied in them, 'direct antonyms' (1990:288-9). In the light of this consider also the sentence *He started to walk, almost to run, across the field*. We may even say that the adverb *almost* attests that, cognitively, *run* and *walk* express different degrees of intensity of action (needless to say, the degree pertains here to the kinetic domain of speed).

It can be seen, then, that the decision on the speed of the movement must be arrived at not only on the basis of extralinguistic considerations but also on the basis of intralinguistic comparison. At this point let me mention Langacker's view (Langacker 1987) that the capacity of human beings to categorize experience is essentially based on comparison.

As I have already mentioned, the majority of manner-conflating verbs can be combined with the adverbs *quickly* and *slowly*. Only some of the verbs, however, carry explicit, unequivocal information about a relatively high speed of motion – consider, e.g., the verbs *speed*, *race*, *sprint*, *spurt*, *hurry*.

It does not seem to be a coincidence that, in terms of specific physical structuration, these verbs do not denote any definite type of manner of movement. By comparison with the manner of motion verbs of the *walk/run* type, they are mute, apart from expressing speed, about any kinetic modality of motion. For example, the sentence *He raced down the slope* may involve various types of motion including running or walking.

As opposed to the above type of verbs, English possesses a group of verbs that inherently express a relatively low speed of motion. Examples of this type of verbs are: *stroll* (*They strolled round the pond together*), *lumber* (*When he walks, he sort of lumbers*), *trudge* (*He trudged the deserted road for hours*), or *drift* (*They drifted inertly down the hot street*).

In comparison with the *hasten* type, the verbs in this group are more specific as to the kinetic modality of movement (they are mostly troponyms of the verb *walk*). In them, the presence of a relatively low speed of motion is, basically, a result of the agent's psychosomatic state (the agent is either unable or not willing to move quickly) and of the

absence of a definite purpose that the motion is to accomplish (the purpose may be the desire to get to a certain place).

The observation, namely that speed of motion maintains a secondary status in that it results from the interpretation of the kinetic character of the respective movement, is corroborated by one more fact. Many verbs that convey explicit information about speed are often resorted to in emotive contexts. This applies, e.g., to the verbs *dash*, *dart*, *rush*, *fly*, *run* or *creep*. These verbs express value-judgements passed on the character of the actor and his manner of moving (consider, e.g., the sentence *She flew to the store* and its paraphrase in the form *She quickly ran to the store*). Speed as a semantic feature maintaining a derived status is, to a large extent, dependent on the speaker's subjective evaluation of motion situation. It is well known that subjectivity is closely related to affectivity, which finds its mode of expression in (among others) the intensification of meaning. As far as the physical modality of motion is concerned, speed and force are those physical parameters that most naturally lend themselves to intensification. (It is clear that the linguistic presentation of movements is not only based on what might be called 'objectively given' phenomena but also on their subjective, including emotive, interpretation.)

Let me mention, by way of digression, that if a relatively high speed is built into the lexical structure of the verb (as in the above sentence *He flew to the store*), the movement is felt as 'more intense' or 'quicker' than in the paraphrase in the form *He quickly ran to the store*, in which *quickly* combines with a primarily non-affective verb. This testifies to the fact that speed is not a component of meaning merely added to the repertory of manner specifications. Rather, it forms part of a finely grained, hierarchically structured lexico-semantic structure. Also, speed appears to be a result of both conceptual and perceptual processing of motion situation.

By way of conclusion, let me mention Lakoff's conception of motion, corroborating my view that, in the majority of English verbs, velocity of motion is a secondary feature, conceptually following from the kinetic properties of actions denoted by the verbs and from their intralinguistic comparison. According to Lakoff (1987:275), the source-path-goal schema, pertaining to the domain of movement, includes the following structural elements: source, destination, path and direction. I would propose that it is not a coincidence that this description of movement lacks one aspect, namely temporal specification of motion.

Notes

- ¹ It is perhaps not without interest to mention here that the idea of the quantization of movement is implicitly present in Langacker's (1982:267) conceptions of movement.
- ² Some linguists use the term 'aspect' also for the situation types lexically encoded in languages.
- ³ Comrie (1976:44-8) uses the term 'telic verbs' for Vendler's accomplishments because in expressions referring to telic situations there should be both a process leading up to the terminal point as well as the terminal point. He reserves the term 'punctual verbs' for Vendler's achievements since *reaching the summit* refers to the terminal point only, not to the process leading up to reaching the summit.
- ⁴ At this point it is perhaps not without interest to mention three distinct word senses of the adjective *fast* as defined by Pustejovsky (1995:74): to move quickly, to perform some act quickly or to do something that takes little time.

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